

**Exhibit 86 Reply Class Certification
Expert Report of Joost Rietveld**

(Dkt. No. 316-2)

REDACTED

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**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE**

**IN RE: VALVE ANTITRUST LITIGATION
Case No. 2:21-cv-00563-JCC**

**EXPERT REPLY REPORT OF PROFESSOR JOOST RIETVELD
July 12, 2024**

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I. ASSIGNMENT

1. I issued an expert report dated February 8, 2024, in which I addressed various topics related to this matter ("Initial Report"). I subsequently reviewed the expert report of Dr. Lesley Chiou, dated May 17, 2024 (the "Chiou Report") and have been asked address the following topics in response to certain analyses and opinions that are put forth in that report:

- A. Indications that Valve's content-parity requirements impede competition among digital PC game distribution platforms; and
- B. Indications that console game platforms are complements to PC game platforms and do not compete.

I address these topics in Sections IV through V below.

II. ADDITIONAL MATERIALS RELIED ON

2. In addition to the materials identified in my Initial Report, the information I rely on in forming my opinions is cited throughout the body of this reply report and listed in Reply Appendix

A. Along with the information I rely on, the opinions I put forth in this reply report are based on my training, education, professional experience, and familiarity with the relevant industry, professional literature, and research.

3. This reply report reflects my analyses and opinions as of the date it is issued. If additional data, testimony, or other information that is relevant to my analyses and opinions become available to me after the issuance of this reply report, I intend to review that information and may modify or update my opinions as I deem necessary. Additionally, I may prepare demonstratives if asked to testify at a hearing or trial.

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III. SUMMARY OF REPLY OPINIONS

4. Based on my independent research, analysis, and review and consideration of materials produced in connection with this matter, along with my education, training, experience, and independent research I have formed the following opinions in reply to the Chiou Report and in addition to those put forth in my Initial Report:

- A. Dr. Chiou does not provide any analysis or opinion rebutting my opinion that Valve's content-parity requirements cause broad, long-term, and systematic harm to PC game publishers. Instead, she merely attempts to address two of the numerous examples of evidence related to Valve's content-parity requirements and mischaracterizes those examples when doing so.
- B. Dr. Chiou fails to explain how the overlap of console and PC titles demonstrates that console platforms compete with third-party digital PC game distribution platforms. Furthermore, her analyses purportedly indicating competition between console platforms and third-party PC game platforms overstate the overlap of console and PC titles, mischaracterize evidence, and ignore other evidence that is contrary to her opinion.

IV. VALVE'S CONTENT-PARITY REQUIREMENTS IMPEDE COMPETITION AMONG DIGITAL PC GAME DISTRIBUTION PLATFORMS

5. Dr. Chiou claims in Section 7.3 of her report that, while I opined that Valve's content-parity requirements preclude different platforms from catering to certain segments of the broad heterogeneous PC player market, I have "not shown that Valve prevents publishers from releasing exclusive content on other platforms, so long as 'comparable [downloadable content ("DLC")]' is offered on Steam."¹ Dr. Chiou also claims that "[p]ublishers could use these differentiated offerings to cater to different audiences on different platforms."² I address these assertions and Dr. Chiou's bases for them in the subsections below.

¹ Chiou Report, ¶ 347.

² Chiou Report, ¶ 347.

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A. The two examples of evidence regarding Valve content-parity requirements Dr. Chiou addresses do not indicate that publishers can offer meaningfully differentiated content on competing platforms

6. Dr. Chiou asserts that “the evidence that Plaintiffs’ experts cite suggests that publishers can offer different content on different platforms.”³ However, she merely addresses two of the numerous examples of evidence in my discussions of Valve’s content-parity requirements and in the Class Certification Expert Report of Dr. Steven Schwartz (the “Schwartz Report”).⁴

7. One of the two references Dr. Chiou addresses is Valve’s Steam Distribution Agreement (“SDA”). Dr. Chiou claims that the language in the SDA “states that publishers are ‘free to offer special and unique promotional content through other distribution channels.’”⁵ However, Dr. Chiou fails to fully address the conditional language in the remainder of the same sentence, which states “provided that material parity is maintained between Steam Account Owners and users of other distribution channels who make a comparable investment in the Application and the associated DLC.”⁶ [emphasis added] While Dr. Chiou takes the position “that publishers can offer different content on different platforms so long as they offer differentiated content on Steam as well,”⁷ she does not address the issue of whether publishers can offer content that is meaningfully different—let alone exclusive—to players without violating Valve’s explicit “material parity” requirement.

8. The second content-parity-related reference from my Initial Report that Dr. Chiou

³ Chiou Report, ¶ 345.

⁴ Chiou Report, ¶ 345; Initial Report, ¶¶ 198 – 201, 213 – 214, 219 – 220; and Schwartz Report, § 5.

⁵ Chiou Report, ¶ 345.

⁶ Chiou Report, ¶ 345; and 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295.

⁷ Chiou Report, ¶ 345.

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addresses is an October 2021 email chain between Valve and [REDACTED] a PC game publisher. In this instance, Dr. Chiou misses the point of the email and states that it is evidence of her position that “publishers can offer different content on different platforms so long as they offer differentiated content on Steam as well.”⁸ Instead, the email indicates that, if a publisher provides a competing platform with special content (in this case a sword), the publisher must also provide Steam with materially comparable content (in this case a sword that is materially the same).⁹ This requirement precludes a publisher’s ability to distribute exclusive or meaningfully differentiated content on other platforms. That is, a publisher cannot offer a sword through the Epic Games Store (“EGS”) and not also offer a sword of equivalent value through Steam.

9. Valve’s suggestion that the publisher could differentiate by offering a red sword on GameStop and a blue sword on Steam does not lessen the impact of Valve’s content-parity requirement. It is the sword itself that creates the differentiating value. Whereas gamers would likely perceive relatively more value in having a sword than not having a sword, they would presumably perceive little, or no difference, in the relative value of having a red sword compared to having a blue sword. As noted above, language in Section 2.4 of the SDA strikes directly at this point: Publishers are “free to offer special and unique promotional content through other distribution channels, provided that material parity is maintained between Steam Account Owners and users of other distribution channels who make a comparable investment in the Application and the associated DLC.”¹⁰ [emphasis added]

⁸ Chiou Report, ¶ 345.

⁹ Deposition of Tom Giardino, November 2, 2023, Exhibit 196.

¹⁰ 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295.

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10. The term “material parity” is undefined in the SDA and vague. In fact, Dr. Chiou acknowledges in Section 7.4 of her report that assessing whether content violates Valve’s content-parity requirement “depends on context.”¹¹ However, the red sword/blue sword email provides clarity as to what Valve means by “material parity.” That is, publishers may not offer content on a competing platform if it is different from the content offered through Steam in any way that would make players perceive such content on a competing platform to be more valuable than the content offered through Steam. It is this requirement of “material parity” that effectively precludes developers from differentiating their games across platforms and helps Valve to maintain Steam’s dominant position. As discussed in my Initial Report and further in subsection D below, impeding publishers from distributing materially differentiated content through competing platforms makes it considerably more difficult for rival platforms to compete with Steam and gain market share. Were it not for Valve’s content-parity requirements, enhanced content differentiation would enable other PC game distribution platforms to compete more effectively with Steam.¹²

B. Dr. Chiou fails to address numerous examples of evidence related to Valve’s content-parity requirements

11. Dr. Chiou does not address any of the numerous other examples of evidence indicating the existence and/or enforcement of Valve’s content-parity requirements that were included in my Initial Report. In addition to those explicit examples, I also stated that I reviewed and considered the evidence related to Valve’s content-parity requirements included in Dr. Schwartz’s report.¹³ That evidence demonstrates that Valve communicates its content-parity requirements to PC game

¹¹ Chiou Report, ¶¶ 348 and 352.

¹² Initial Report, ¶¶ 216 – 225.

¹³ Initial Report, ¶ 201.

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publishers,¹⁴ and that Valve enforces these requirements by removing or threatening to remove the games or promotions of publishers Valve deems in violation of its content-parity requirements.¹⁵

12. Furthermore, that evidence also importantly illustrates the breadth of Valve's content-parity requirements, specifically that: (1) contrary to Valve's claims, its content-parity requirements constitute a wide most-favored nation policy ("MFN"); (2) Valve's content-parity requirements govern a wide range of content; and (3) Valve's content-parity requirements include timing-related provisions, which require that publishers make DLC or in-game content available through Steam no later than such content is made available through non-Steam platforms.¹⁶ I discuss each of these characteristics of Valve's content-parity requirements—characteristics that Dr. Chiou fails to consider—in the three subsections that follow.

i. Valve's content-parity requirements constitute a wide MFN

13. While Valve refers to its content-parity requirements as a "narrow" parity policy,¹⁷ Valve's content-parity requirements do not fit the definition of a narrow MFN, but rather constitute a wide MFN. A 2015 paper titled *The Competitive Effects of Parity Clauses on Online Commerce* describes the difference between narrow and wide MFN policies:¹⁸

¹⁴ Valve communicates its content-parity requirements to Steam publishers through 2.1 and 2.4 of its SDA. *See, for example*, 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295, at VALVE_ANT_0000009. *See also*, Initial Report, ¶ 198. As I note in my Initial Report, Valve's content-parity requirements are relatively uniform across all SDAs. Initial Report, ¶ 198; and October 5, 2023 Deposition of Cassidy Gerber, p. 80. Valve has included content-parity requirements in its SDAs since at least as early as 2011. VALVE_ANT_0022321, at 321 – 322. As I also note in my Initial Report, all publishers must agree to Valve's SDA to distribute games on Steam. Initial Report, ¶ 198.

¹⁵ *See, for example*, VALVE_ANT_0967621 from 634 – 641; Deposition of Tom Giardino, November 2, 2023, Exhibit 196; VALVE_ANT_119987; and Deposition of Augusta Butlin, October 11, 2023, Exhibit 121 from VALVE_ANT_2715858 – 866.

¹⁶ 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295, at VALVE_ANT_0000009.

¹⁷ Defendant Valve Corporation's Opposition to Plaintiffs' Motion for Class Certification, p. 2.

¹⁸ Ezrachi, A. (2015). The competitive effects of parity clauses on online commerce. *European Competition*

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MFNs are commonly divided into two distinct categories: narrow and wide, differentiated by their scope and effects. A narrow MFN links the price and terms quoted on an online platform to those available directly on the upstream supplier's website, ensuring that the former will not be less attractive than the latter. A wide MFN provides for similar protection on a wider scale, aiming to ensure that the price and terms quoted through the platform in question will not be higher than the price available directly on the upstream supplier's website or on any other platform.

Thus, in the context of Steam and the PC game segment, a narrow MFN would apply only to the websites or game stores of publishers that also distribute games on Steam (which I described in my Initial Report as "self-distribution platforms"), whereas a wide MFN would apply both to the websites or game stores of those publishers *and* competing PC game distribution platforms (this includes any third-party distribution platform on which a Steam game is released, such as EGS).

14. Valve's content-parity requirements constitute a wide MFN that applies both to publishers' websites and game stores¹⁹ as well as competing distribution platforms.²⁰ For example, a June 2022 email exchange between Valve and publisher ██████ indicates that Valve's content-parity requirements apply to first-party games stores. In the exchange, ██████ states, "we are planning to open our own cash shop where we can sell in-game items," and asked, "[a]re we allowed to sell items which can be used in games we published on Steam and allow users to use those items? [sic]" In response, Steam wrote, "if you're going to offer content on the ██████ cash shop, you'll

Journal, 11(2-3), 488-519, at 489. *See, also*, Wang, C., & Wright, J. (2023). Platform investment and price parity clauses. *The Journal of Industrial Economics*, 71(2), 538-569, at 538 ("Price parity clauses (or platform MFNs as they are sometimes also known) have attracted considerable recent attention from policymakers and scholars. These clauses, imposed by platforms like Amazon or Expedia, require the price a firm offers on the platform is no higher than the prices the same firm offers when selling the same item through its own website (narrow price parity) or via any channel (wide price parity). In the latter case, it implies the firm offers its best price through the given platform.

¹⁹ Deposition of Tom Giardino, November 2, 2023, Exhibit 196; and Deposition of Augusta Butlin, October 11, 2023, Exhibit 131.

²⁰ 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 292; Deposition of Augusta Butlin, October 11, 2023, Exhibit 121; and Deposition of Augusta Butlin, October 11, 2023, Exhibit 130.

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need to offer that to Steam users via Steam as well.”²¹ The October 2021 email exchange between [REDACTED] and Steam mentioned above similarly demonstrates that Valve’s content-parity requirements apply to publishers’ own platforms.²²

15. Other email exchanges demonstrate that Valve’s content-parity requirements also apply to competing PC game distribution platforms. For example, in an April 2022 email exchange between Valve and publisher [REDACTED] indicated that it had planned to offer the PC version of its [REDACTED] on the [REDACTED] before potentially introducing the DLC to Steam.²³ In response, Valve stated, “we wouldn’t want to sell a game on Steam if there were DLCs or Special Editions you could only buy somewhere else,” and stressed that “this is an area where we don’t have any wiggle room, waivers, etc. If a game had an expansion pack, a special edition, a free trial version, whatever the case may be, we’d want to sell that on Steam (or just not sell the game at all until we got a chance to give customers the full slate of offerings).”²⁴ Valve drove home the point by stating “[t]he main goal for [Valve] is just making sure that once we’re *selling* on Steam, we’re able to put the same offers in front of Steam users as you’re making elsewhere.”²⁵ [emphasis in original] In another October 28, 2018 email exchange, Valve similarly threatened publisher [REDACTED] with the removal of its [REDACTED] game if [REDACTED] continued to offer exclusive [REDACTED] content through the [REDACTED] platform.²⁶

²¹ Deposition of Augusta Butlin, October 11, 2023, Exhibit 131.

²² Deposition of Tom Giardino, November 2, 2023, Exhibit 196.

²³ VALVE_ANT_0967621, at 637 – 641.

²⁴ VALVE_ANT_0967621, at 637 – 638.

²⁵ VALVE_ANT_0967621, at 634.

²⁶ Deposition of Augusta Butlin, October 11, 2023, Exhibit 121.

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ii. Valve's content-parity requirements apply to a wide range of content

16. Valve attempts to downplay the breadth of its content-parity requirements with its observation that such requirements apply “only to DLC.”²⁷ However, in the SDA, Valve defines “DLC” as encompassing a very broad range of content. More specifically, Section 1.11 of the SDA defines “DLC” as including “any online content, features or software” specific to a game such as “virtual items, expansion packs, ... stock multimedia, game scenarios or levels, [and] additional functionality.” The SDA's definition of “DLC” also includes any content purchased via “in-application purchase transactions” (such as microtransactions) and “any services provided with respect to [a game] in exchange for a subscription payment.”²⁸ Thus even if Valve's content-parity requirements apply “only” to DLC, such requirements would nonetheless govern a wide variety of content. Furthermore, as discussed in the subsections that follow, data Dr. Chiou relies on indicates that, relative to base game sales, DLC accounts for an ever-growing share of PC game revenues, with DLC and microtransactions accounting for █████ of global PC game revenues in 2022.²⁹

17. Emails between Valve and publishers further indicate that Valve's content-parity requirements apply to a wide range of content, including any items acquired via in-game purchases

²⁷ Defendant Valve Corporation's Opposition to Plaintiffs' Motion for Class Certification, p. 13.

²⁸ § 1.11 of the SDA: “DLC” shall mean any online content, features or software specific to an Application [i.e., game] that is made available by Company [i.e., the publisher] for purchase, download or online access separately from the Application, whether through in-application purchase transactions or otherwise (for example, but without limiting the foregoing, Application-themed virtual items, expansion packs, additional filters, codecs, stock multimedia, game scenarios or levels, additional functionality, etc.). DLC also includes any services provided with respect to an Application in exchange for a subscription payment. 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295, at VALVE_ANT_0000009.

²⁹ See Figure 1 to this Reply Report.

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(such as microtransactions),³⁰ unlockable content (“ULC”),³¹ and game editions or expansions.³² For example, in the June 2022 exchange between [REDACTED] and Valve discussed above, Valve stated its content-parity requirements in response to [REDACTED] question regarding the sale of “in-game items” through its first-party store.³³ The April 2022 email exchange between Valve and [REDACTED] indicates that Valve’s content-parity requirements also apply to “Special Editions,” “expansion pack[s],” and “free trial version[s].”³⁴ Evidence also indicates that Valve has been enforcing its content-parity requirements related to a broad range of content for over a decade. In a March 2014 email exchange between Valve and [REDACTED] for example, Valve threatened to withhold future marketing of a [REDACTED] game if [REDACTED] continued to offer retail-exclusive ULC consisting of “three costumes” that did “not affect core gameplay mechanics.”³⁵

iii. Valve’s content-parity requirements include timing-related provisions

18. Evidence further indicates that Valve’s content-parity requirements include timing-related requirements, which require that publishers make DLC or in-game content available on Steam no later than such content is made available through non-Steam platforms. For example, Section 2.4 of the SDA states that, if a publisher of a Steam game distributes DLC for that game through any

³⁰ The SDA includes language indicating that Valve’s content-parity requirements apply to content acquired via microtransactions. As noted above, § 2.4 of the SDA requires material parity between Steam and non-Steam platforms with respect to the “DLC” available for a given Steam game. In § 1.11 of the SDA, “DLC” is defined as “any online content, features, or software specific to [a game] that is made available ... for purchase, download or online access separately from the [game], *whether through in-application purchase transactions or otherwise*” [emphasis added]. See 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295 from VALVE_ANT_0000008 – 009. Email correspondence between Valve and publishers also indicates that Valve’s content-parity requirements apply to in-game items. *See, for example*, Deposition of Augusta Butlin, October 11, 2023, Exhibit 131 from VALVE_ANT_1210287 – 290.

³¹ VALVE_ANT_2714225.

³² VALVE_ANT_1221288 and VALVE_ANT_0967621.

³³ Deposition of Augusta Butlin, October 11, 2023, Exhibit 131.

³⁴ VALVE_ANT_0967621.

³⁵ VALVE_ANT_2714225.

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other non-Steam distribution channel, the publisher must “deliver the DLC to Valve at the same time.”³⁶ This same requirement has been communicated to publishers directly via email. For example, in an October 2015 email to publisher [REDACTED], Valve stated:

In our business agreement, we specify that Company [REDACTED] will deliver to Valve [sic] any application updates when available, and no later than they are provided to any other distribution service. And we include DLC in that description. (that’s section 2. [of the SDA], specifically 2.1 and 2.4, if you need the reference).

In short what we’re asking for is to get DLC on our store at the same time you launch it elsewhere. It’s not OK to launch a DLC on your own or other stores, and then bring it to Steam some weeks or months later.³⁷

19. Thus, the consequence of the timing provision of Valve’s content-parity requirements is that, if a game is distributed through Steam, the publisher of that game cannot offer timed DLC exclusives on competing platforms. As I discuss in my Initial Report, in an attempt to differentiate their offerings and gain a foothold in the PC game distribution market, non-Steam distribution platforms (such as [REDACTED] have pursued the unsustainable and costly strategy of offering timed game exclusives, which are games that are released on only one distribution platform for a negotiated period before the publisher makes them available on Steam at a later date.³⁸ This differentiation strategy is expensive for a platform to implement, as in order to entice a publisher to offer its game exclusively through a single platform, the platform seeking exclusivity must offer the publisher an incentive large enough to offset the revenue the publisher could have earned by also selling its game through other platforms. Were it not for Valve’s content-parity requirements, competing platforms could also differentiate their offerings with a less costly timed DLC exclusive strategy.

³⁶ 30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295, at VALVE_ANT_0000009.

³⁷ VALVE_ANT_0215669.

³⁸ Initial Report, ¶¶ 88, 170 – 175, and 217.

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Relative to a timed game exclusive differentiation strategy, a timed DLC exclusive differentiation strategy would be less expensive for competing platforms to implement. Hence, absent Valve's content-parity requirements, third-party platforms could differentiate themselves at a lower cost and thus more effectively compete with Steam.

20. The foregoing are merely several examples of evidence Dr. Chiou does not address indicating that Valve enforces wide content-parity requirements which impede publishers from meaningfully differentiating in-game content and other DLC across platforms and/or storefronts.

C. Dr. Chiou and Valve minimize the increasing strategic importance of DLC to PC game publishers

21. Dr. Chiou's assertion that Valve's content-parity requirements do not prevent publishers from releasing exclusive content on other platforms, so long as comparable DLC is offered on Steam mischaracterizes and minimizes the importance of DLC to PC game publishers.³⁹ In fact, it is through DLC, not the base game, that game publishers would likely differentiate their games across distribution platforms. If it were not for Valve's content-parity requirements, more differentiation through DLC that is meaningful and valuable to players would likely occur.

22. Additionally, DLC has increasingly become a strategically important source of revenue for PC game publishers. DLC enables publishers to extend the life cycles of their base games and thereby release fewer base games. Rather than releasing new base games more frequently, which are costly to develop and commercially risky, publishers can release and generate revenues from incremental enhancements to existing base games through DLC, expansion packs, and special

³⁹ Chiou Report, ¶ 347.

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editions. Furthermore, as games have become more connected, allowing for continuous updates and improvements, publishers' business models have shifted towards "live service" and free-to-play models where the base game is often free and revenue is generated through in-game transactions, which can be recurring in some instances.⁴⁰ Industry data indicate that these trends are especially salient in the PC game segment (as opposed to the console game segment).⁴¹

23. Data on market estimates that Dr. Chiou relies on indicate the growing strategic importance of DLC to PC game publishers.⁴² Specifically, the chart in Figure 1 below illustrates the following estimates from the "Newzoo Market Data": [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁴³

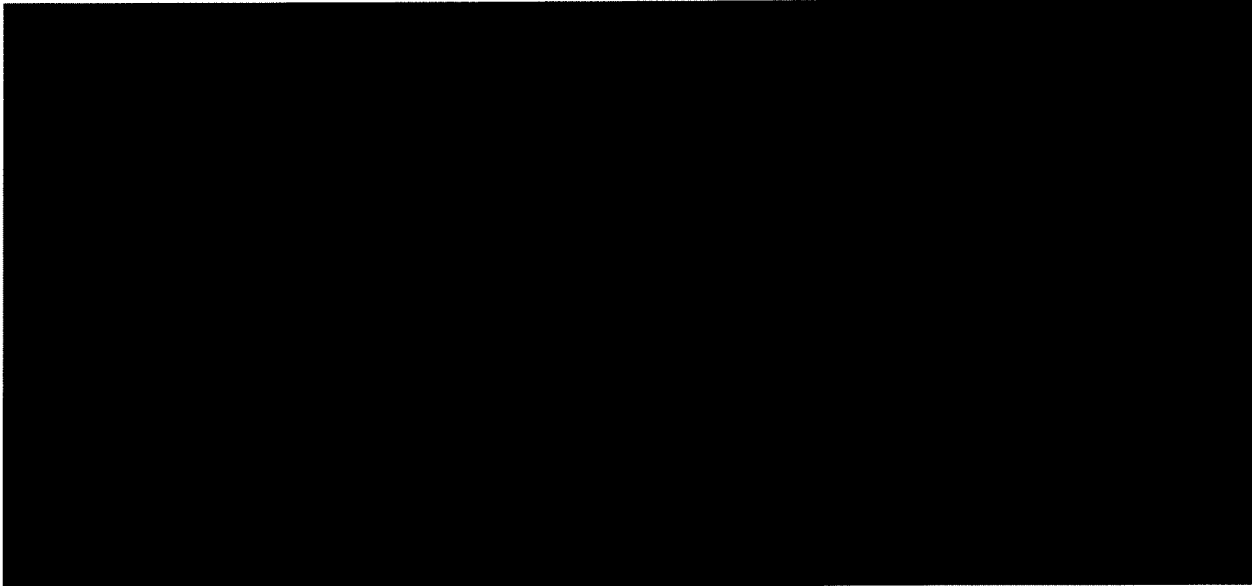
⁴⁰ Rietveld, Joost and Joe N. Ploog. (2022) "On top of the game? The double-edged sword of incorporating social features into freemium products." *Strategic Management Journal* 43(6), 1182–1207.

⁴¹ See Figures 1, 2, and 6 to this Reply Report. Newzoo noted in its *2023 PC & Console Gaming Report* that: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] PC & Console Gaming Report 2023," Newzoo, March 2023, pp. 22, 28, and 29.

⁴² Chiou Report, § 16.1; and "Newzoo Global Market Size 2015 to 2022.csv".

⁴³ "Newzoo Global Market Size 2015 to 2022.csv." Newzoo defines [REDACTED] as [REDACTED]
[REDACTED] Chiou Report, § 16.1; and Newzoo, *Global Games Market Report*, July 2023, p. 15. Based on my understanding of the SDA and review of evidence in this matter, it is my understanding that at least some of the content falling under Newzoo's definition of [REDACTED] would be subject to Valve's content-parity requirements. *For example*, in an email chain between Valve and [REDACTED] Valve expressed that its requirement of material parity was violated by [REDACTED] temporarily retail-exclusive offer of cosmetic DLC consisting of "three costumes" that did "not affect core gameplay mechanics" (See VALVE_ANT_2714225). See also, the email exchange between Valve and [REDACTED] at VALVE_ANT_0967621, in which Valve indicated that [REDACTED] EGS-exclusive offer of battle pass-like [REDACTED] was in violation of Valve's content-parity requirements. See also, § 1.11 and § 2.4 of the SDA, which together entail that Valve's content-parity requirements apply to "any online content, features or software specific to [a game] ... whether through in-application purchase transactions or otherwise" including "any services provided with respect to [a game] in exchange for a subscription payment" (30(b)(6) Deposition of Erik Peterson, November 15, 2023, Exhibit 295,

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Figure 1. Newzoo - Global PC Game Segment Revenues by Source

24. As shown in Figure 1, PC game revenues from DLC and microtransactions █████ from approximately █████ of total revenues in 2015 to approximately █████ of total revenues in 2022. This contrasts with revenues generated from sales of base games, which █████ from approximately █████ of total revenues in 2015 to approximately █████ of base games in 2022. Figure 1 also demonstrates that revenues from in-game subscriptions were just █████ of total PC game revenues in 2022, up from approximately 0.4% in 2015.

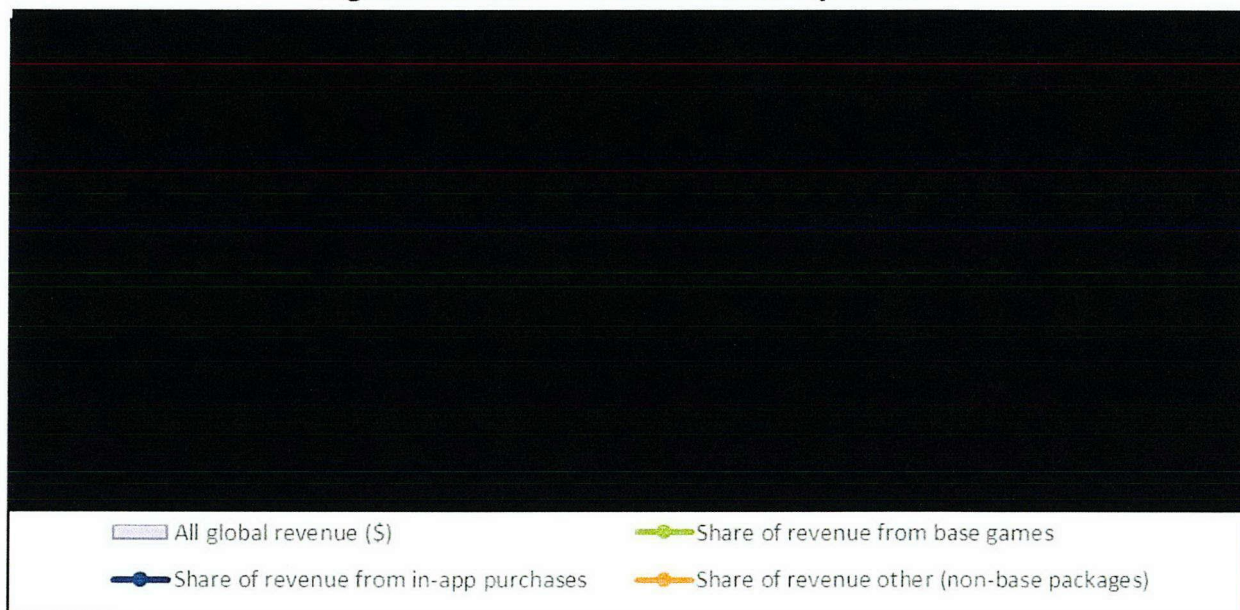
25. The Steam-specific data produced in this matter demonstrates similar trends. Specifically, the chart in Figure 2 below illustrates: (1) total global revenues generated on Steam from 2017 through 2022 (the Class Period); (2) share of total Steam revenues generated from sales of base games; (3) share of total Steam revenues generated from in-app purchases; and (4) share of total

at VALVE_ANT_0000008 – 009).

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Steam revenues generated from other (non-base packages).⁴⁴

Figure 2. Steam – Global Revenues by Source



26. As shown in Figure 2 above, revenues generated from in-app purchases and other (non-base packages), which I understand includes DLC, combined █████ from approximately █████ of total Steam revenues in 2017 to approximately █████ of total Steam revenues in 2022. This contrasts with revenues generated from base games, which █████ from approximately █████ of total Steam revenues in 2017 to approximately █████ of total Steam revenues in 2022.

27. While revenues directly from DLC and microtransactions have become increasingly important to PC game publishers, DLC and microtransaction content are also important more broadly because they may steer players to competing platforms for base game downloads and

⁴⁴ "Valve summary statistics.xlsx"; Reply Appendix B; and Class Certification Report of Steven Schwartz, Ph.D., February 8, 2024, Appendix B (Data Processing). I understand that revenues reflect total consumer spend net of taxes and returns. I also understand that "other (non-base packages)" may also include packages such as non-base editions.

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revenues generated therefrom. If the desired differentiated DLC and/or microtransaction content is only available through a competing platform, players will generally first purchase and/or download the related base game from the competing platform, which then enables the players to purchase and access the desired DLC from the same competing platform. Thus, even if Valve's content-parity requirements "only" apply to DLC,⁴⁵ this category of content is an increasingly important and strategic revenue driver for publishers and distribution platforms alike.

D. Dr. Chiou does not address the broad, long-term, and systematic harm caused by Valve's content-parity requirements

28. According to Dr. Chiou, "[e]stablishing antitrust injury from the alleged content PMFN would require individualized inquiry into proposed class members' business decisions and how those decisions would change (if at all) in the but-for world."⁴⁶ However, this narrow focus on direct and immediate individualized harm to PC game publishers ignores the broad, long-term, and systematic harm that Valve's content parity causes to PC game publishers by depriving them of alternative platforms through which they could distribute their games and related content.

29. As explained in my Initial Report, Valve's content-parity requirements effectively preclude competing digital PC game distribution platforms from differentiating the content of their offerings from Steam's offerings, thereby making it considerably more difficult for challenger platforms to compete with Steam and gain market share—especially considering Steam's dominant market position and strong network effects. Were it not for Valve's content-parity requirements, enhanced content differentiation and lower prices would enable rival PC game distribution platforms to

⁴⁵ Defendant Valve Corporation's Opposition to Plaintiffs' Motion for Class Certification, p. 13.

⁴⁶ Chiou Report, ¶ 348.

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compete with Steam more effectively.⁴⁷

30. Recent academic literature has addressed the harmful impact of dominant platforms implementing MFNs to impede differentiation by competing platforms. For example, a 2023 article in the *Yale Journal of Law and Technology* explains that nonprice MFNs, such as Valve's content-parity requirements, "make it hard or impossible for new platforms to differentiate themselves from the dominant incumbent," which "may forestall competitive entry without the need for any contractual restrictions on price."⁴⁸ The author explains the issue as follows:⁴⁹

It is typically hard for new firms to enter a platform market, particularly if it is already dominated by a large incumbent. This is because platform markets are subject to strong network effects...

... The market leader has the advantage of a larger network, which makes it harder for smaller firms to compete for users even if their platforms are technologically superior.

Due to strong network effects, the most viable way for a new platform to challenge a dominant incumbent is often to differentiate itself in some way. In many cases, this involves offering exclusive content or features. By offering something distinctive that the market leader cannot provide, an entrant can persuade many users to adopt its service even if its network is much sparser than the incumbent's.

...

In many platform markets, the most viable way for an entrant to differentiate itself is to enter into strategic relationships with a few trading partners. In these dealings, the trading partners agree to make certain products, features, or other services exclusive to the entrant's platform, at least temporarily. The arrangement may also involve an innovative collaboration with the trading partner to develop new products or features. For example, a streaming service like Hulu might work with

⁴⁷ Initial Report, ¶¶ 216 – 225.

⁴⁸ Hovenkamp, Erik. (2023) Restraints on Platform Differentiation. *Yale Journal of Law and Technology*, 25, pp. 271– 308, at 277.

⁴⁹ Hovenkamp, Erik. (2023) Restraints on Platform Differentiation. *Yale Journal of Law and Technology*, 25, pp. 271 – 308, at 273 – 277.

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movie studios to develop exclusive films for its platform.

However, recently some major platforms have begun entering into restrictive vertical agreements with trading partners that threaten this channel of competitive entry. These deals prohibit trading partners from making any products or features exclusive to rival platforms, even for a short time. In other words, they prohibit trading partners from helping smaller platforms to offer something unique to consumers. This can prevent entrants from being able to differentiate themselves, in which case network effects may make market entry impossible.

... Amazon is accused of entering into far-reaching agreements with eBook publishers that deter them from collaborating with rival eBook platforms to develop alternative distribution models (e.g., a subscription model) or eBook functionalities (e.g., animated content). It does this not by expressly prohibiting such efforts, but rather by requiring publishers to ensure that Amazon will be in a position to unveil the same new content or distribution model at the exact same time as any rival platform. But, of course, this largely kills off rivals' incentive to introduce novel features or business models in the first place. Such restrictions could easily undermine both competition and innovation.

These potentially anticompetitive restraints fall into the category of 'most favored nation' (MFN) agreements. In an MFN, one party agrees that it will offer terms to the other party that are at least as favorable as those it offers to the other party's competitors...

... nonprice MFNs ... make it hard or impossible for new platforms to differentiate themselves from the dominant incumbent. This may forestall competitive entry without the need for any contractual restrictions on price.

31. Valve's content-parity requirements are precisely the kind of MFNs the author of the article quoted above is discussing. While Valve does not prohibit publishers from offering novel content on competing platforms, its content-parity requirements ensure that Steam will be positioned to offer the same content as (or content that is in "material parity" with) any rival PC game distribution platform, at the same time. As the author notes, "this largely kills off rivals' incentive

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to introduce novel features or business models in the first place.”⁵⁰

32. Dr. Chiou ignores these broad impediments and even goes so far as to opine that “some publishers may be worse off in a but-for world without the alleged content parity requirement,” arguing that competing platforms may not offer payments to publishers that make their content exclusive to a competing platform.⁵¹ She attempts to support this argument by offering the example of Epic Games paying 505 Games \$10.45 million to distribute its game *Control* exclusively on EGS.⁵² According to Dr. Chiou, 505 Games could be worse off in the but-for world because “Epic Games may not offer an exclusivity payment...” However, this argument overlooks the various ways 505 Games may benefit in the but-for world.

33. First, 505 Games would be able to generate revenues from both sales of *Control* through Steam and sales of materially differentiated content through EGS. Second, Epic Games may still offer 505 Games a financial incentive for exclusive content for *Control* through EGS (although, presumably, an amount less than what Epic Games paid for the entire exclusive game). Third, absent Valve’s parity requirements, there would be more platforms competing against Steam and/or existing rivals would compete more effectively against Steam, resulting in expanded demand for *Control*, lower commission rates paid by 505 Games,⁵³ or some combination thereof. These factors all contribute to offset the effects of potentially not receiving payments for base-game exclusivity.

⁵⁰ Hovenkamp, Erik. (2023) Restraints on Platform Differentiation. *Yale Journal of Law and Technology*, 25, pp. 271 – 308, at 276.

⁵¹ Chiou Report, ¶ 354.

⁵² Chiou Report, ¶¶ 356 – 357.

⁵³ Class Certification Report of Steven Schwartz, Ph.D., February 8, 2024, § 8.3.5.

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34. As I explain in my Initial Report (and quoted by Dr. Chiou), with the existence of Valve's content-parity requirements in the PC game segment, competing platforms can currently only meaningfully differentiate the content of their offerings through games that are not available on Steam. Because of this, competing platforms must compensate (or guarantee) publishers for revenues they forego from sales through Steam when an entire game is exclusively distributed through a competing platform, like EGS. In the absence of Valve's content-parity requirements, publishers would be free to distribute the same games through both Steam and competing platforms, while distributing materially differentiated content for those games on rival platforms. In this way, publishers would not forego revenues from sales of base games through Steam while also benefiting from sales from materially differentiated DLC on competing platforms.

35. Furthermore, absent Valve's content-parity requirements, more platforms would offer payments for exclusive DLC. With base games distributed through multiple platforms, those platforms (including Steam) would compensate publishers for exclusive materially differentiated DLC as a means of competing more effectively against rival platforms. However, compared to the expense of base-game exclusivity, which is cost prohibitive for most platforms,⁵⁴ platforms would find it more feasible to procure a larger amount of exclusive DLC. Publishers would be willing to accept less for exclusive DLC, relative to exclusive base games, given the relatively lower development costs of DLC and lower opportunity cost associated with making differentiated DLC, rather than an entire base game, exclusive to a single platform. Thus, rather than receiving a single payment in exchange for exclusive distribution of a base game, publishers would likely receive multiple smaller payments in exchange for exclusive DLC offerings. As more platforms became

⁵⁴ Initial Report, ¶¶ 170 – 175, and 217.

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financially capable and willing to make such payments, the net effect on publishers would likely be positive.

36. Finally, as I describe in my Initial Report, Valve's parity requirements preclude rival PC game distribution platforms from competing with Steam effectively and enable it to maintain its dominant position. Absent Valve's content-parity requirements, rival PC game distribution platforms would be more competitive based on differentiation and/or low-cost strategies.⁵⁵ This would result in more platforms and/or more competitive platforms entering the PC game segment—including any platforms that are currently deterred from entering the market in the face of Valve's parity requirements. Thus, absent Valve's content-parity requirements PC game publishers would likely enjoy a larger addressable market for both base games and DLC. That is, the combined installed bases of Steam and other competing platforms would be larger, presumably resulting in more sales and higher revenues. Moreover, publishers would likely further benefit in the form of lower commission fees charged by distribution platforms because of a more competitive platform landscape.⁵⁶ The combination of publishers selling their base games through more platforms, striking exclusivity deals for materially differentiated DLC, and a more competitive distribution platform landscape would benefit PC games publishers.

37. Dr. Chiou also argues that publishers "removing content from a consumer's preferred platform to make it exclusive elsewhere may alienate consumers."⁵⁷ To support this supposition, Dr. Chiou discussed an account of Unfold Games, an indie publisher that chose not to make its

⁵⁵ Initial Report, § XII(D).

⁵⁶ Class Certification Report of Steven Schwartz, Ph.D., February 8, 2024, § 8.3.5.

⁵⁷ Chiou Report, ¶ 359.

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video game *DARQ* exclusive to EGS.⁵⁸ However, as Dr. Chiou noted in her footnote, Unfold Games had already announced the release date for *DARQ* on Steam prior to being approached by Epic Games about making the game exclusive to EGS. In fact, although Dr. Chiou did not note the point in her footnote, according to the publisher, *DARQ* “was in the top 50 most wishlisted games on Steam” prior to Epic Games contacting the publisher.⁵⁹ Thus, making the game exclusive to EGS would have required rescinding the publicly announced release of *DARQ* on Steam, which would have presumably caused discontent among players and reputational harm to Unfold Games.

38. In most instances, publishers have not already announced that a game will be distributed through Steam when agreeing to distribute a game exclusively on a competing platform. Rather than “removing content from a consumer’s preferred platforms,” as Dr. Chiou suggests, games distributed exclusively on competing platforms have generally never been distributed (or announced to be distributed) through Steam. Nevertheless, absent Valve’s content-parity requirements, the publisher’s game could have been distributed through both Steam and EGS along with any exclusive differentiated content. In doing so, there would be no issue of alienating players by removing the game from their preferred platform. Rather, players could have had access to the game on Steam along with the benefit of differentiated content on EGS if they so choose.

39. Notably, Dr. Chiou does not dispute that the existence and enforcement of a meaningful content-parity requirement would cause broad, long-term, and systematic harm to PC game publishers, specifically in the form of preventing the existence of competing platforms through

⁵⁸ Chiou Report, ¶ 359, and footnote 615.

⁵⁹ <https://medium.com/@unfoldgames/why-i-turned-down-exclusivity-deal-from-the-epic-store-developer-of-darq-7ee834ed0ac7>.

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which publishers could distribute their games. Rather, Dr. Chiou argues that: (1) evidence does not show that Valve prevents publishers from offering differentiated content; and (2) it is not possible to determine which publishers are impacted by the content-parity requirements. However, as discussed above, Dr. Chiou merely attempted to address two of the numerous examples of evidence related to Valve's content-parity requirements, and she mischaracterized those examples when doing so.

V. DR. CHIOU'S OPINION THAT CONSOLE PLATFORMS COMPETE WITH DIGITAL PC GAME DISTRIBUTION PLATFORMS IS FLAWED

40. Dr. Chiou argues in Section 3.1.2 of her report that "console platforms represent a critical source of competition for digital third-party [PC] gaming platforms."⁶⁰ In her attempt to support this assertion, Dr. Chiou discusses: (1) the degree of overlap in titles playable on PCs and consoles; (2) selected business decisions made by industry participants; and (3) what Dr. Chiou contends is competition between Valve's Steam Deck and the Nintendo Switch.

41. Dr. Chiou tempered her opinion when discussing the topic at her deposition, repeatedly testifying that her opinion is merely "that the evidence is consistent with gaming consoles and P.C.s being substitutes."⁶¹ Regardless of whether Dr. Chiou believes consoles are a "critical source of competition for digital [PC] gaming platforms," as she stated in her report, or merely that there is evidence consistent with consoles and PCs being substitutes, as she testified at her deposition, there are numerous flaws and shortcomings in her analyses and conclusion related to the purported competition between PC gaming and console platforms, some of which I address below.

⁶⁰ Chiou Report, ¶ 128.

⁶¹ Deposition of Lesley Chiou, Ph.D., June 18, 2024, pp. 37 – 38, and 46.

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A. Dr. Chiou fails to explain how an overlap of console and PC titles demonstrates that console platforms compete with third-party digital PC game distribution platforms.

42. Dr. Chiou fails to explain why an overlap of titles playable on PCs and consoles supports the conclusion that “console platforms represent a critical source of competition for digital third-party gaming platforms.” According to Dr. Chiou, “[i]ndividual developers develop titles for both consoles and PCs, and individual consumers purchase titles on both consoles and PCs.”⁶² While that statement is true, it is also true that individual developers develop titles for both consoles and mobile (or PC and mobile), and that individual consumers purchase titles on both consoles and mobile (or PC and mobile). However, Dr. Chiou does not opine that the overlap of mobile and PC titles demonstrates that mobile platforms compete with third-party digital game distribution platforms.

43. As I discuss in my Initial Report, the PC, console, and mobile gaming segments each have distinct characteristics that offer distinct gaming experiences and attract distinct customers or distinct types of gameplays at different price points. There are also meaningful distinctions in game development and production among the three segments.⁶³ Thus, even if there is a degree of overlap between titles playable on PCs, consoles, and/or mobile devices, that alone does not address the many distinctions that make each of the three device types distinct segments of the overall video game industry. Without addressing the many distinctions among PC and console gaming, merely counting and noting the number of titles that overlap among PC and console devices does nothing to demonstrate that console platforms compete with third-party digital PC game distribution

⁶² Chiou Report, ¶ 112.

⁶³ Initial Report, ¶¶ 49 – 82.

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platforms.

44. Despite failing to explain how the data support her assertion, Dr. Chiou includes a table (“Exhibit 2”) that presents observations of overlap among PC and console titles from Newzoo, which shows the 10 best-selling games in the United States for PC, PlayStation, and Xbox in 2022.⁶⁴ From the data in her Exhibit 2, Dr. Chiou noted that “[o]f the top 10 games on PC, seven are also available on consoles. Nine of the top 10 PlayStation titles and all of the top 10 Xbox titles are available on PC.”⁶⁵ [emphasis added] Similar overlap data related to the Nintendo Switch, however, is a curious omission from Dr. Chiou’s Exhibit 2.⁶⁶ Had Dr. Chiou included similar data related to titles for the Nintendo Switch, her table would show more title overlap among PCs and PlayStation (or Xbox) than title overlap among Nintendo Switch and PlayStation (or Xbox).⁶⁷ Thus, if one were to merely consider the availability of popular titles on other platforms, as Dr. Chiou suggests in her analysis, the Nintendo Switch would be less competitive than PCs with the other two console devices. This is not a proposition that reflects the actual nature of competition within the video game industry and highlights that, without addressing the numerous distinguishing factors between the device types, mere counts of overlapping titles are not indicative

⁶⁴ Chiou Report, Exhibit 2.

⁶⁵ Chiou Report, ¶ 114.

⁶⁶ Chiou Report, Exhibit 2; According to the Newzoo “Methodology” page Dr. Chiou produced, Newzoo’s “[Revenue Model] provides [REDACTED]” Dr. Chiou did not explain why the Nintendo Switch was not included in her analysis of overlapping titles.

⁶⁷ Newzoo’s list of the top-10 Nintendo Switch games by average monthly active users in the United States in 2022 shows that [REDACTED] of the top-10 Nintendo Switch titles were available on PC [REDACTED]. This degree of overlap is [REDACTED] than the nine of the top-10 PlayStation titles and ten of the top-10 Xbox titles noted on Dr. Chiou’s Exhibit 2. In addition, the overlap of titles between the Nintendo Switch and the other two consoles is the same as the overlap of titles between the Nintendo Switch and PC (of the top-10 Nintendo Switch titles in 2022, [REDACTED] were also available for Xbox and PlayStation in 2022). See, “PC & Console Gaming Report 2023,” Newzoo, March 2023, p. 21.

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of competition among consoles and third-party digital PC game distribution platforms.

45. More generally, Dr. Chiou's methodology of counting the number of top-10 games in one segment that are also available in another segment (regardless of their sales ranking or commercial performance in the second segment) risks ignoring important differences between the two segments. If a game sells well on consoles but not on PC, this can point to some of the meaningful distinctions between these segments as discussed in my Initial Report,⁶⁸ including different competitive dynamics and/or differences in consumer preferences across two distinct segments.

46. Furthermore, as I discuss in detail below, merely considering the overlap of bestselling games across device types provides little meaningful insight into the total amount of title overlap among PC and console devices. Top-selling games in any segment tend to be big-budget productions and must sell many units for the publishers to recover their investment. Thus, these games tend to be planned multi-platform releases. To the extent a game is a surprise hit in one segment, it may take time before the publisher can port and release the game to another segment—if it decides to port the game at all. Finally, even for those games that are released on multiple device types, publishers often make meaningful changes to the content and functionality of their games when they are ported across different industry segments. This can even entail engaging different developers to develop the same game for different device types. Simply counting the number of titles overlapping across PC and console devices each year does not account for any differences in the timing of releases, changes in content, features, or any other meaningful differences between titles for PC and console devices.

⁶⁸ Initial Report, ¶¶ 49 – 82.

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47. As an illustration, *Rust* is a game first developed and published for PC by Facepunch Studios.⁶⁹ The game was released through Steam in February 2018, and was among the [REDACTED] games in the United States in 2019 ([REDACTED]) and 2021 ([REDACTED]) according to the Steam transaction data produced in this matter.⁷⁰ Facepunch Studios released paid DLC packages for *Rust* in 2019, 2020 and 2021, along with a new game mode in 2021.⁷¹ It was not until May 2021 that Facepunch released *Rust* on consoles (PlayStation 4 and Xbox One), more than three years after its release on PC. To port *Rust* to consoles, Facepunch collaborated with another development studio, Double Eleven—which had not been involved in the development of the PC version—to ensure the game would run well on consoles.⁷²

48. Facepunch and Double Eleven had to make major changes to *Rust* when porting it to consoles, stating that “[t]o accommodate the game on these systems, some light optimisations wouldn’t cut it!”⁷³ Reflecting on the console version, the developers noted that they “created a completely different beast designed for consoles and their respective players” and they “knew early on that the two games would need to be in separate universes given that the PC edition can expand as it needed to, and performance would be maintained so long as people continued to upgrade their hardware, while consoles on the other hand have finite resources that need to be more closely

⁶⁹ <https://store.steampowered.com/app/252490/Rust/>.

⁷⁰ <https://store.steampowered.com/app/252490/Rust/>; and Reply Appendix C.

⁷¹ <https://www.eurogamer.net/rust-is-getting-ten-new-playable-instruments-in-its-wholesome-first-premium-dlc>; <https://www.rockpapershotgun.com/rusts-next-dlc-pack-adds-pools-tubes-and-water-guns>; <https://www.nme.com/news/gaming-news/noisy-rust-dlc-adds-mobile-phones-boom-boxes-and-new-dances-2983909>; and <https://www.polygon.com/2021/2/5/22268450/rust-softcore-servers-new-players-gameplay-changes-delivery-drones>.

⁷² <https://www.ign.com/articles/rust-console-edition-release-date-announced-for-ps4-and-xbox-one>.

⁷³ <https://rust.double11.com/news/what-is-rust-console-edition>.

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managed.”⁷⁴

49. When *Rust* was released on consoles, it launched with a different set of DLC packs than those that were available through Steam.⁷⁵ It also performed differently, both in absolute terms [REDACTED] as well as comparatively (how it ranked against other titles on the same platform). The physical edition of the game ranked [REDACTED]

[REDACTED].⁷⁶ Thus, despite being available across both PC and consoles, *Rust* was released on consoles at a different time, with different content, by different firms, to a different commercial reception. Simply counting overlap among the top-10 list for one segment and the full list of games available for another segment, as Dr. Chiou presented, overlooks these qualitative details that indicate important differences between the two distinct segments.

50. The meaningful distinctions between PC and consoles provide context for why developers may choose to develop games for different device types and why players may choose to purchase games on different device types. That is, publishers multi-home across device types to reach different segments of the wide video game player base, and players multi-home across device types to play different games or different versions of the same game.

51. For the foregoing reasons, Dr. Chiou fails to demonstrate that an overlap of titles playable on PCs and console devices indicates that console platforms compete with digital third-party PC gaming platforms.

⁷⁴ <https://rust.double11.com/news/what-is-rust-console-edition>.

⁷⁵ <https://rust.double11.com/xbox-buy-now>; and <https://store.steampowered.com/app/252490/Rust/>.

⁷⁶ “circana_data.csv” produced by Dr. Chiou.

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B. Dr. Chiou overstates the overlap in titles playable on both PCs and consoles

52. Even if one were to assume that an overlap in titles playable on PCs and consoles is indicative of competition among the PC and console segments, which it is not, the evidence Dr. Chiou presents is misleadingly overstated. According to Dr. Chiou, the following are purportedly evidence of “the substantial overlap in titles playable on PCs and consoles”:⁷⁷

- A. █ percent of PC games in Newzoo's Game Performance Monitor data in 2022 were also released on PlayStation or Xbox consoles.⁷⁸
- B. Chiou Report Exhibit 2, showing the overlap in top-10 games on PC, PlayStation, and Xbox in 2022.
- C. Of the top-10 games available on Steam in 2022, eight are also available on PlayStation and/or Xbox.
- D. Of the top-100 games available on Steam in 2022, 78 are available on PlayStation and/or Xbox.
- E. Of the top-500 games on Steam, 342 are available on PlayStation and/or Xbox.

53. Dr. Chiou used Newzoo's 2022 [REDACTED] data for PC games in the United States for the analysis in which she derived the first statistic listed above (Dr. Chiou purports that [REDACTED] of PC games available in 2022 were also available on PlayStation or Xbox consoles). However, this engagement data does not adequately measure the overall PC gaming landscape and cannot provide a meaningful indication of overlap between PC and console titles.⁷⁹ While there were estimated to be at least 75,000 PC games on Steam alone at the time I issued my Initial Report, the

⁷⁷ Chiou Report, ¶¶ 112–115, and Exhibit 2.

⁷⁸ Calculated using Newzoo's [REDACTED] data from 2022.

⁷⁹ According to the Newzoo methodology page Dr. Chiou produced, Newzoo explains that the

See document titled “Newzoo – Methodology” produced by Dr. Chiou.

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Newzoo [REDACTED] data Dr. Chiou relied on to calculate the statistic merely includes [REDACTED] titles.⁸⁰ She then compounds the shortcomings of the Newzoo data (for this particular purpose) by improperly excluding [REDACTED] titles (approximately [REDACTED] of the titles in the dataset) because they [REDACTED] [REDACTED].⁸¹ Given that this dataset is intended to [REDACTED], it is likely that all [REDACTED] excluded games were in fact [REDACTED].⁸² Due to the discrepancy in the number of video games on PC and consoles, and because Newzoo is [REDACTED] [REDACTED], it is likely that the [REDACTED] PC games excluded from Dr. Chiou's analysis have a lower level of title overlap than the games she included, rendering her calculation speculative and unreliable.

54. To further illustrate the undersampling of PC games in Dr. Chiou's analysis, the chart in Figure 3 compares the number of (1) PC games released on Steam (according to SteamSpy), (2) PC games tracked by Newzoo's [REDACTED] data, and (3) PC games included in Dr. Chiou's analysis by release year from 2005 through 2022.⁸³

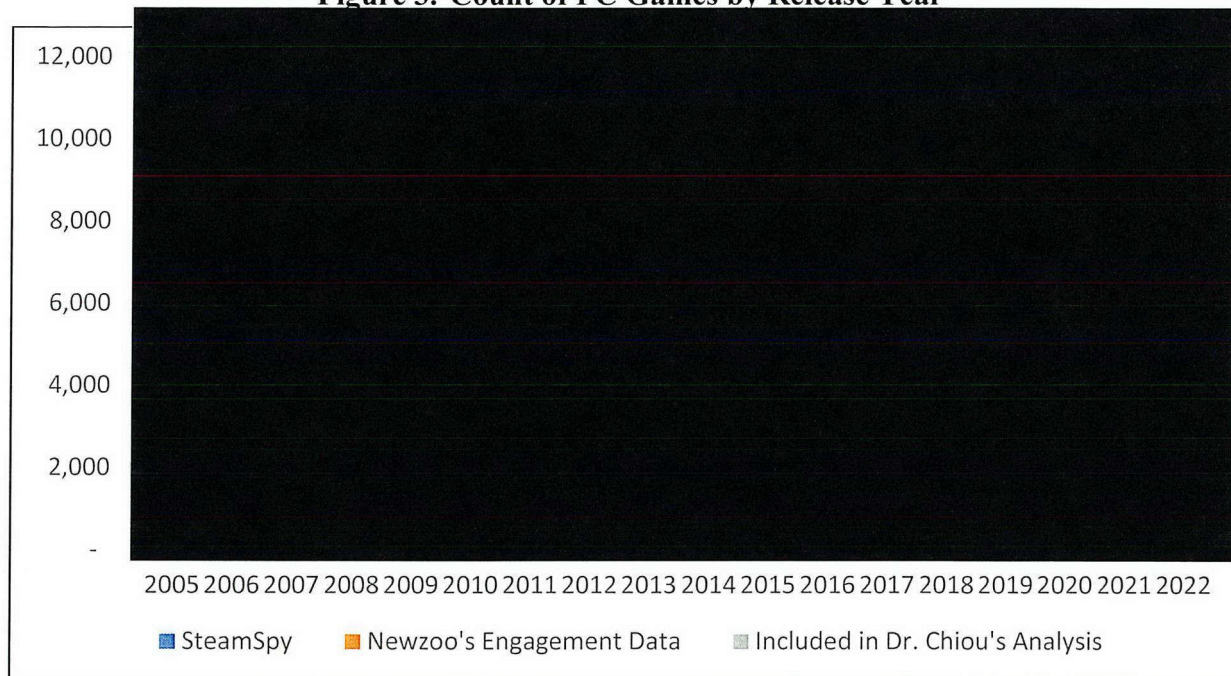
⁸⁰ Initial Report, ¶ 19; and "[REDACTED]_data_2022_pc_us.csv." Given that there are significantly more titles for PC than consoles, it appears that the Newzoo [REDACTED] data [REDACTED] [REDACTED].

⁸¹ The [REDACTED] titles Dr. Chiou excluded (of the [REDACTED] total in the data set) from her analysis had [REDACTED] [REDACTED], leaving [REDACTED] titles in her analysis, of which [REDACTED] titles listed a [REDACTED] [REDACTED]. Thus, Dr. Chiou derived her [REDACTED] calculation as follows: [REDACTED] [REDACTED] See "[REDACTED]_data_2022_pc_us.csv" produced by Dr. Chiou and Dr. Chiou's Workpaper 13.

⁸² This statement is further supported by the fact that [REDACTED] of the excluded games were available on Steam. See the "Steam tags" field in "[REDACTED]_data_2022_pc_us.csv."

⁸³ Initial Report, Figure 4 (data compiled from *SteamSpy.com*); <https://store.steampowered.com/news/group/4145017/view/3133946090937137590>; and "[REDACTED]_data_2022_pc_us.csv."

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Figure 3. Count of PC Games by Release Year

55. From 2005 through 2022, more than 62,000 games were released on Steam alone. For games released during that same period, the Newzoo data Dr. Chiou relied on tracks [REDACTED] of games released on Steam.⁸⁴ After excluding certain games from the Newzoo data, Dr. Chiou's analysis tracks merely approximately [REDACTED] of games released on Steam from 2005 through 2022.⁸⁵

56. Each of the other four statistics (B – E above) that Dr. Chiou presents on are derived from samples of the top revenue-generating games on PC (top-10) or Steam (top-10, top-100, and top-500) and suffer from similar flaws. The degree of title overlap between PCs and consoles generally decreases as a sample, especially one based solely on revenue generation, increases because the most successful games will generally be released on more than one device type. This is evident in

84 [REDACTED]

85 [REDACTED]

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Dr. Chiou's calculations: as her sample increases from top-100 games to top-500 games, title overlap decreases from 78% to 68%. This inverse relationship would continue as the sample size increases. Thus, none of the calculations Dr. Chiou presents are indicative of overall title overlap among PCs and consoles. I included a more accurate analysis of title overlap in my Initial Report, which shows that no more than 24% of new games released on Steam (in 2021) could have multi-homed to a console device.⁸⁶

57. Finally, the title Dr. Chiou gave Exhibit 2 ("The same games are popular on both PC and consoles") is misleading.⁸⁷ In fact, as Dr. Chiou acknowledges, only [REDACTED] of the top-10 PC titles in Exhibit 2 are also among the top-10 PlayStation titles, and just [REDACTED] of the top-10 PC titles are also among the top-10 Xbox titles.⁸⁸ Thus, at best, it might be concluded that several games are popular on both PC and consoles.

58. I performed a similar analysis for each year in the class period using the Steam transaction data and Circana data produced in this matter (rather than Newzoo's estimates, which can be imprecise). The results of this analysis are summarized in Figure 4 below.

⁸⁶ Initial Report, ¶ 148. This analysis conservatively assumes that all console games are available on PCs and there is no title multi-homing across digital and physical media.

⁸⁷ Chiou Report, Exhibit 2.

⁸⁸ Chiou Report, ¶ 114.

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Figure 4. Overlap in the Bestselling Games on Steam and Console Ecosystems in the U.S.⁸⁹

Year	Overlap: Top 10 Steam and Top 10 Nintendo	Overlap: Top 10 Steam and Top 10 PlayStation	Overlap: Top 10 Steam and Top 10 Xbox
2017	■	■	■
2018	■	■	■
2019	■	■	■
2020	■	■	■
2021	■	■	■
2022	■	■	■

59. Very few games are in the top-10 of both PC and console platforms each year. This is entirely expected given that PCs and consoles offer different gameplay experiences and players across both segments have heterogenous preferences, which I discuss in detail in my Initial Report. Further, as discussed above, the success of a single game on multiple device types does not indicate that the devices compete. Rather, it shows that certain games can be successful across distinct audiences and gameplay experiences offered by PC and console platforms.

C. The purported evidence Dr. Chiou refers to does not establish that industry participants view PCs and consoles as substitutes

60. Dr. Chiou asserts that “[c]onsole manufacturers observe substitution between PCs and consoles in the ordinary course of business and make business decisions in response to competition from PC platforms.”⁹⁰ As support for this assertion, Dr. Chiou refers to the following:⁹¹

- A. A 2016 interview of Sony Interactive Entertainment’s CEO, Andrew House, during which he suggests that the introduction of the PlayStation 4 Pro was to prevent players from migrating to PC during the middle of a console cycle.

⁸⁹ Reply Appendix C, showing overlap among “Steam (base + other revenues)” and console ecosystems.

⁹⁰ Chiou Report, ¶ 116.

⁹¹ Chiou Report, ¶¶ 116 – 118.

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- B. Microsoft's decisions to (1) sell its PC games in the Xbox App for Windows PC, (2) introduce "play anywhere" titles that can be played on an Xbox and PC, and (3) make games in its Game Pass subscription service accessible on both PCs and consoles.
- C. Deposition testimony from Valve witnesses purportedly suggesting that Valve views Steam as competing with Xbox and PlayStation console platforms.

However, Dr. Chiou mischaracterizes evidence and/or ignores evidence contradicting her conclusion that Sony, Microsoft, and Valve make business decisions in response to perceived competition between consoles and PCs.

61. First, Dr. Chiou mischaracterized the evidence as suggesting that Microsoft made business decisions in response to competition from PCs. Rather, each of the business decisions Dr. Chiou notes indicates that Microsoft, a company just as much involved with PC gaming as it is with console gaming, believes PCs complement its Xbox consoles. Specifically, Microsoft appears to be encouraging players to use multiple device types as complements to play Xbox games. For example, regarding the introduction of "Play Anywhere" titles, a user must have both an Xbox and PC to take advantage of the functionality.⁹² It is unlikely that Microsoft viewed this decision as one that would convince a significant number of PC players to buy an Xbox, but rather as one to give existing Xbox players more accessibility to Xbox games.

62. Similarly, Microsoft's decision to sell PC games in the Xbox App for PC and to make games in its Game Pass subscription available on both PCs and consoles do not appear to be "business decisions in response to competition from PCs" as Dr. Chiou describes. Rather, these decisions were made to give existing Xbox players more accessibility to Xbox games, to sell PC

⁹² <https://news.xbox.com/en-us/2016/09/15/everything-you-need-to-know-about-xbox-play-anywhere/>. Microsoft describes Play Anywhere titles as digital games that can be purchased through the Xbox Store or the Windows Store and played on Xbox and Windows 10/11 PC at no additional cost. <https://www.xbox.com/en-US/games/xbox-play-anywhere>.

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games via another channel, and expand the Game Pass customer base. Notably, Microsoft made the same decisions for mobile devices as well.⁹³ Evidence produced in this case shows a Microsoft employee [REDACTED], indicating that Microsoft does not view [REDACTED].⁹⁴

63. In 2020, Sony began introducing more first-party titles previously exclusive to PlayStation consoles across multiple platforms, including PCs.⁹⁵ More recently, Sony began releasing more of its live-service, first-party games on PlayStation and PC simultaneously.⁹⁶ However, Sony plans to continue releasing its “tentpole” narrative-driven, single-player games exclusively on the PlayStation console.⁹⁷ This approach of employing varying strategies for first-party games indicates that Sony recognizes the complementarity of the PlayStation console and PCs both from the supply and demand side. That is, Sony carefully considers which types of games and content best fit which gaming platforms (PC vs. console) and the different audiences that have chosen to adopt these platforms.

64. Dr. Chiou also asserts that “[s]everal Valve witnesses, including Gabe Newell and Scott Lynch, testified that Valve views Steam to be competing with Xbox and PlayStation.”⁹⁸ As support

⁹³ <https://www.xbox.com/en-US/apps/xbox-game-pass-mobile-app>.

⁹⁴ In a September 2020 email to Valve, [REDACTED] of Microsoft, states that Microsoft is [REDACTED]
[REDACTED] Exhibit 60 to the 30(b)(6) Deposition of DJ Powers, September 29, 2023.

⁹⁵ <https://www.gamesradar.com/expect-more-playstation-games-on-pc-as-sony-reveals-its-plans-aggressive-work-on-multiplatform-releases/>; and <https://www.gamesradar.com/sony-confirms-more-playstation-games-are-coming-to-pc/>.

⁹⁶ <https://www.pcgamer.com/gaming-industry/sonys-senior-vice-president-says-the-companys-live-service-games-will-release-simultaneously-with-pc-but-single-player-launches-are-designed-to-bring-new-players-onto-ps5/>.

⁹⁷ <https://www.theverge.com/2024/5/29/24167560/sony-thinks-its-pc-games-will-tempt-you-to-buy-a-playstation-really>.

⁹⁸ Chiou Report, ¶ 118.

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for this assertion, Dr. Chiou relies on deposition testimony that she mischaracterized or contradicts Valve's statements elsewhere. For example, Dr. Chiou cites Scott Lynch's testimony in which he appears to state that consumers may have access to Steam and Xbox/PlayStation.⁹⁹ However, Dr. Chiou fails to explain why acknowledgement of the plain fact that consumers have access to multiple gaming device types indicates competition between those device types. As I discuss in my Initial Report, the multi-homing rates of PC players across device types speak to the complementarity among PC, console, and mobile devices for playing video games.¹⁰⁰ The United Kingdom Competition and Markets Authority ("CMA"), which Dr. Chiou references, corroborates this, stating that "[t]hird party reports indicate that gamers use mobile devices in a complementary manner to PC or console; for example, with one third-party report indicating that a majority of gamers [redaction] play games on their mobiles and at least one other platform."¹⁰¹

65. Dr. Chiou also references two statements from Gabe Newell's deposition.¹⁰² However, Mr. Newell did not state that Steam competes with Xbox and/or PlayStation consoles in either instance. Instead, Mr. Newell appears to suggest that video game players and publishers have a variety of options through which to buy and distribute games, including Steam and consoles.¹⁰³ If Mr. Newell's testimony is interpreted to mean that he believes Steam competes with consoles, as Dr. Chiou suggests, it would contradict statements Mr. Newell has made publicly on the topic. For example, in a 2020 interview with a New Zealand talk show, Mr. Newell, in response to a question

⁹⁹ Chiou Report, ¶ 118, citing Deposition of Scott Lynch, October 12, 2023, p. 166.

¹⁰⁰ Initial Report, ¶¶ 140 – 145.

¹⁰¹ CMA Final Report, *Anticipated Acquisition by Microsoft of Activision Blizzard, Inc.*, April 26, 2023, p. 56.

¹⁰² Chiou Report, ¶ 118, citing Deposition of Gabe Newell, November 21, 2023, pp. 115 and 169.

¹⁰³ Deposition of Gabe Newell, November 21, 2023, pp. 115 and 169.

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regarding the upcoming release of the Xbox Series X and PlayStation 5, stated “I don’t have a stake in that [console] race. We do most of our development on personal computers...”¹⁰⁴

66. Furthermore, Dr. Chiou’s assertion that “Valve reciprocally views console platforms as an important source of competition” contradicts statements Valve submitted to the European Commission (“EC”). As noted in my Initial Report, in its reply to a request for information from the EC related to Microsoft’s proposed acquisition of Activision, Valve stated [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]¹⁰⁵ Thus, Valve effectively acknowledged that PC and console gaming are distinct segments.

67. Dr. Chiou’s assertion is also contradicted by the following, which appears to be a presentation Valve prepared for [REDACTED] stating “Deep Discounts on PC Do Not Affect Console Sales”:¹⁰⁶

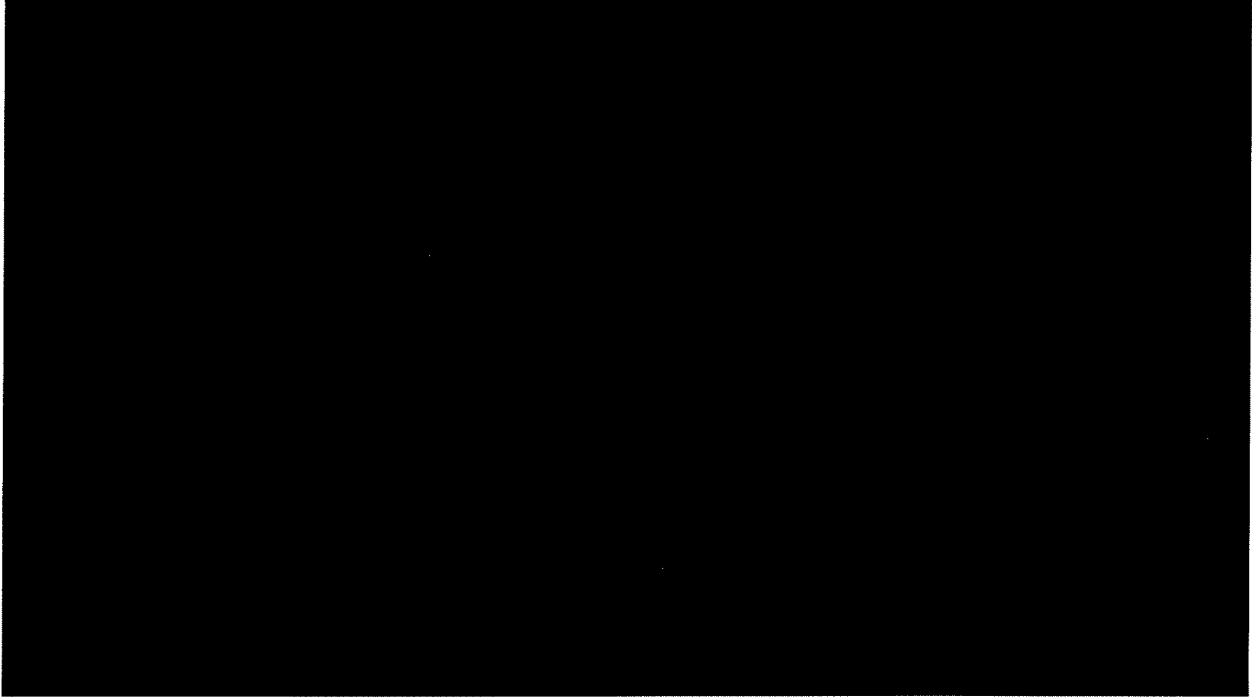
¹⁰⁴ <https://www.cnet.com/culture/ps5-or-series-x-gabe-newell-picks-next-gen-xbox-over-playstation/>.

¹⁰⁵ VALVE_ANT_2710947 – 954, at 951.

¹⁰⁶ VALVE_ANT_1221398, slides 16 – 17.

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Figure 5. Valve: “Deep Discounts on PC Do Not Affect Console Sales”



68. The chart and underlying data appear to show that when Valve issues “deep discounts” (i.e., temporal price declines of 50% or more) for its internally developed and popular video game *Portal 2*, those discounts lead to [REDACTED] on Steam where the discounts are issued (as one would expect), but do not appear to have [REDACTED] on the sales of the same game released on Xbox and PlayStation 3 consoles. More formally, this would mean that versions of the same game (*Portal 2* in this case) on PC and console platforms do not compete. In this same presentation, one of Valve’s recommendations to [REDACTED] was to “[c]onsider alternative models for the PC platform...The audience and landscape are different.”¹⁰⁷

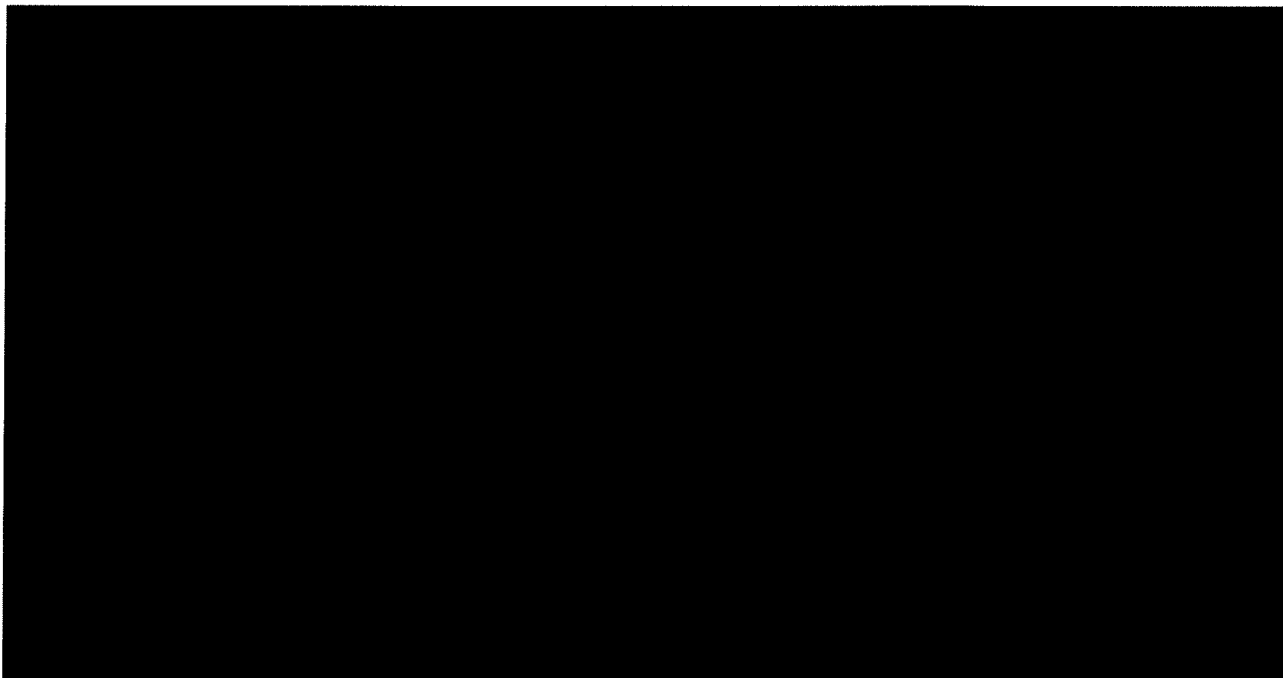
69. Finally, Dr. Chiou’s discussion focuses on business decisions made by platform owners

¹⁰⁷ VALVE_ANT_1221398, slide 18.

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and ignores decisions made by publishers and video game players. As discussed in my Initial Report, due to the higher volume of games available on PCs, monetization strategies for publishers and purchasing habits for players differ significantly among the two segments.¹⁰⁸ This can be [REDACTED] Dr. Chiou produced in this matter. Figure 6 below compares the distribution of total global PC and console revenues by source for 2017 through 2022 combined.¹⁰⁹

Figure 6. Newzoo - Global PC vs Console Revenues by Source (2017 – 2022 combined)



70. As shown in Figure 6 above, the combination of microtransactions and DLC accounts for [REDACTED] of PC game revenue for 2017 through 2022 combined. For the same period, only [REDACTED] of console gaming revenues were attributable to microtransactions and DLC. The prominence of full boxed games in console gaming is another significant distinction between the two device types.

¹⁰⁸ Initial Report, ¶¶ 77 – 82, and 117 – 121.

¹⁰⁹ “Newzoo Global Market Size 2015 to 2022.csv” produced by Dr. Chiou.

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Full boxed games accounted for [REDACTED] of console gaming revenues for 2017 through 2022 combined, but [REDACTED] of PC gaming revenues for the same period. Furthermore, multi-game subscription services such as Xbox Game Pass and PlayStation Plus account for [REDACTED] of total revenues for console while [REDACTED]

[REDACTED] Indeed, as Newzoo points out in its 2023 Global Games Market Report: [REDACTED]

[REDACTED]¹¹⁰ These differences illustrate that publisher decisions regarding their business models and/or consumer decisions regarding their purchases are distinct across the PC and console gaming segments.

D. Dr. Chiou ignores evidence from Valve and industry participants indicating that the Steam Deck is not a direct competitor to consoles

71. Dr. Chiou also asserts that “Steam competes with the Nintendo Switch through Valve’s Steam Deck, a handheld gaming PC.”¹¹¹ While there are similarities in the physical appearance of the two, there are significant and meaningful distinctions between the devices, including technical capabilities and target audience. Valve has recognized these differences publicly and indicated that it does not consider the Steam Deck to compete with the Nintendo Switch.

72. For example, IGN interviewed Gabe Newell in July 2021 about the Steam Deck and “how Valve sees it as a whole new product category.”¹¹² Mr. Newell was asked if the Nintendo Switch influenced the introduction of the Steam Deck, to which he responded as follows:

... there have been attempts to provide mobile gaming platforms for a really long

¹¹⁰ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 82.

¹¹¹ Chiou Report, ¶ 119.

¹¹² <https://www.youtube.com/watch?v=9kO6Dj2XNfY>.

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time and for me... as somebody who's used to sort of high-end desktop PC gaming and console gaming they always felt like they were compromises, so I think Nintendo does a great job targeting the audience they do with the content that they have and that's going to be different like when you pick this up it feels much more like the ergonomics for somebody who's used to playing with you know an expensive game controller right and uh you know it's because of that it's bigger and and it's bulkier than um a Switch and you know if we're right that's the right trade-off to be making for the audience that we're going after... its obvious that [Nintendo] made the right set of trade-offs for [its] customers and that kind of content and we'll just have to find out whether or not we've made the right tradeoffs... if you're a gamer and you pick up a Switch and you pick up one of these you're going to know which one is right for you right and you're good you're going to know it within 10 seconds.

73. Pierre-Loup Griffais, a developer for the Steam Deck at Valve¹¹³ also participating in the interview with IGN, agreed with Mr. Newell stating that Valve never really made comparisons with the Nintendo Switch when developing the Steam Deck, but rather viewed the devices as “two parallel things.” In a separate interview with QooApp, Mr. Griffais was asked if the Steam Deck is a portable PC or handheld game console, to which he responded as follows:¹¹⁴

It's a PC right, there are no two ways about it. It's much closer to a PC than a console I think, and there are a couple of things we've done with it to streamline the default experience with Steam OS like adding deck verification, which is like an extra service on top of what we usually do to advertise the best experiences. That means that some people might choose to experience it closer to a console, where they don't want to tinker or tweak anything to get a good experience, and we try to provide them the tools for that. But at the end of the day, if you want to peel off these layers and use it like a PC, you're more than welcome to and I think most of the users so far have been using some sort of PC functionality to get more out of the deck.

Jay Shaw, a designer working on the Steam Deck, agreed that the Steam Deck is a portable gaming PC and noted that some users are “almost abandoning the gaming aspect of it” and using it as a

¹¹³ https://x.com/Plagman2?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor.

¹¹⁴ <https://news.qoo-app.com/en/post/111223/qoo-app-steam-deck-interview>.

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music workstation or a portable creation device.¹¹⁵

74. Contrary to Valve's own public statements regarding the Steam Deck, Dr. Chiou lists several publications that she claims "present the Switch and Steam Deck as direct substitutes."¹¹⁶ While the titles of these publications may suggest that the devices compete, the content of the articles mostly suggest that the authors believe that the Nintendo Switch and Steam Deck are distinct devices targeting distinct gaming audiences. For example, the sub-header of one publication Dr. Chiou listed (*Tom's Guide*) reads "The Valve Steam Deck and Nintendo Switch OLED are both powerful but target very different gaming audiences."¹¹⁷ The author explains that while both machines "look similar, they are rather different at their heart. The Switch OLED is basically a nicer Nintendo Switch and very much a handheld games console. The Steam Deck, however, is basically a portable PC, with all the flexibility and quirks that come with."¹¹⁸ The following are additional quotes from articles Dr. Chiou relied on but mostly contradict her conclusion that the Nintendo Switch competes with the Steam Deck:

- A. "Deciding whether you want a Steam Deck or a Switch OLED, then, is more about assessing your own gaming habits than comparing the minutiae of each device." – *Tom's Guide*¹¹⁹
- B. "Right from the get-go, it's clear that Valve is courting a more demanding audience. At \$399, the cheapest Steam Deck costs more than the most expensive Switch variant; at \$649, the most expensive Steam Deck costs more than three times as much as the Switch Lite." – *Tom's Guide*¹²⁰

¹¹⁵ <https://news.qoo-app.com/en/post/111223/qoo-app-steam-deck-interview>.

¹¹⁶ Chiou Report, ¶ 122.

¹¹⁷ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹¹⁸ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹¹⁹ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²⁰ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

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- C. “On the one hand, the Steam Deck and the Switch OLED look similar, as they’re both handheld consoles, optimized to run modern games. On the other hand, the Steam Deck has more accommodations for PC gaming, while the Switch OLED keeps things simpler.” – *Tom’s Guide*¹²¹
- D. “The Steam Deck has the potential to run hundreds — if not thousands — more games than the Switch OLED. That’s because at its core, the Steam Deck is simply a small PC, and PCs have access to all of the best PC games and the widest game library around. You’ll be able to install just about anything on Steam, of course, but Valve also promises that you’ll be able to ‘install and use PC software’ normally. In theory, this means that if you can find a way to download your software, you can play it.” – *Tom’s Guide*¹²²
- E. “From a library perspective, the choice between a Steam Deck and Nintendo Switch OLED is very much like the choice between a PC and a Nintendo Switch. Do you want the broadest selection of games, running at the best settings? Or do you want the high-quality Nintendo franchises that you can’t get anywhere else?” – *Tom’s Guide*¹²³
- F. “While we don’t know exactly how the Steam Deck and the Nintendo Switch OLED will stack up to each other in practice, we can say that they have very different demographics in mind. The Nintendo Switch OLED, like other Switch models, targets a console-centric audience, with a streamlined interface and a focus on Nintendo franchises. The Steam Deck, on the other hand, seems like a much more powerful and open-ended device, letting you run more demanding games at a higher clip, and expecting you to bring at least some of your own hardware to the party.” – *Tom’s Guide*¹²⁴
- G. “For the moment, we can say that PC gamers will want to keep an eye on the Steam Deck, while console gamers will want to consider the Nintendo Switch OLED.” – *Tom’s Guide*¹²⁵
- H. “At a glance, Steam Deck looks similar to the popular Nintendo Switch, but there are several big differences between the two portable systems.” – *Business Insider*¹²⁶
- I. “Ultimately, the choice between a Steam Deck or Switch isn’t as simple as picking a definitive winner or just going with the most powerful or affordable option. Both portable consoles are geared toward different kinds of players and you should make your choice based on your priorities as a gamer.” – *Business Insider*¹²⁷

¹²¹ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²² <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²³ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²⁴ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²⁵ <https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>.

¹²⁶ <https://www.businessinsider.com/guides/tech/steam-deck-vs-nintendo-switch>.

¹²⁷ <https://www.businessinsider.com/guides/tech/steam-deck-vs-nintendo-switch>.

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- J. "The Switch is a better buy for casual players, big fans of Nintendo's franchises, and younger gamers who don't care about top-of-the-line graphics... Meanwhile, the Steam Deck is an impressive piece of hardware that's best-suited for people that are tech savvy and have a PC as their primary gaming platform. Players that already own a large library of PC games on Steam benefit the most, since they can bring them right over to Steam Deck." – *Business Insider*¹²⁸
- K. "The Nintendo Switch and Valve Steam Deck are a world apart as far as handheld gaming consoles go, but many have understandably drawn comparisons between the two. Whether it's the display, battery life, design, performance, or general availability of games there is a lot to compare between the two consoles. And while both were created for two different groups of gamers, if you're serious about mobile gaming you're probably intrigued by both options." – *USA Today*¹²⁹
- L. "For most people, picking up a Switch over the Deck probably makes the most sense right now, especially if you're not an avid PC gamer. But while the Nintendo Switch technically edges past the Steam Deck thanks to better battery life, display, and overall value, both were created with different audiences in mind." – *USA Today*¹³⁰
- M. "But again, if you are first and foremost a Nintendo gamer, then stick with the Switch if you don't already have one. If you're primarily a PC gamer and own all or most of your games on Steam, then the Steam Deck makes more sense." – *USA Today*¹³¹
- N. "However, both handheld gaming consoles are appealing to gamers like myself who land in the center of the Switch-Deck venn diagram, so if you want to buy both go for it—no one is stopping you." – *USA Today*¹³²

75. Valve's public statements and the numerous quotes from articles Dr. Chiou cited to all indicate that, contrary to Dr. Chiou's assertion, the Nintendo Switch and the Steam Deck do not compete but are instead very different devices targeted towards very different audiences.

76. Dr. Chiou also argues that the Steam Deck "is not only a substitute with the Nintendo Switch, but with other consoles as well."¹³³ However, Dr. Chiou fails to understand the role the

¹²⁸ <https://www.businessinsider.com/guides/tech/steam-deck-vs-nintendo-switch>.

¹²⁹ <https://reviewed.usatoday.com/laptops/features/nintendo-switch-vs-steam-deck>.

¹³⁰ <https://reviewed.usatoday.com/laptops/features/nintendo-switch-vs-steam-deck>.

¹³¹ <https://reviewed.usatoday.com/laptops/features/nintendo-switch-vs-steam-deck>.

¹³² <https://reviewed.usatoday.com/laptops/features/nintendo-switch-vs-steam-deck>.

¹³³ Chiou Report, ¶ 123.

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Steam Deck and similar devices play in the gaming industry. For example, the Newzoo report Dr. Chiou produced categorizes the Nintendo Switch and the Steam Deck as [REDACTED]

[REDACTED]¹³⁴ Newzoo explains that the Steam Deck, and products like the Steam Deck, [REDACTED]
[REDACTED]
[REDACTED]¹³⁵ In other words, these devices are not competing with one another but giving existing customers more access to their preferred gaming platform.

77. The Newzoo report also notes that while the Steam Deck offers a [REDACTED]
[REDACTED]

[REDACTED]¹³⁶ Newzoo states that [REDACTED]
[REDACTED]

[REDACTED]¹³⁷ Newzoo does [REDACTED]
[REDACTED]

[REDACTED]¹³⁸ The report concludes its discussion of

[REDACTED] with the following statement:¹³⁹

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

¹³⁴ “Global Games Market Report” (Full Version), Newzoo, July 2023, pp. 38 – 40.

¹³⁵ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 38.

¹³⁶ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 39.

¹³⁷ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 39.

¹³⁸ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 39.

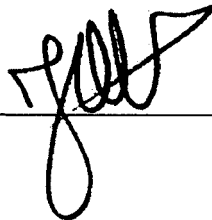
¹³⁹ “Global Games Market Report” (Full Version), Newzoo, July 2023, p. 40.

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[REDACTED]

78. For at least the numerous reasons discussed throughout this section, Dr. Chiou fails to show that “console platforms represent a critical source of competition for digital third-party gaming platforms” or that “Valve develops products to directly compete with console platforms.”¹⁴⁰

Dated July 12, 2024
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Joost Rietveld', is written over a horizontal line.

Joost Rietveld

¹⁴⁰ Chiou Report, ¶¶ 119 and 128.

Additional Materials Relied On

All Materials

Class Certification Expert Report of Lesley Chiou, Ph.D. May 17, 2024 with backup materials
Defendant Valve Corporation's Opposition to Plaintiffs' Motion for Class Certification
Deposition of Gabe Newell, November 21, 2023
Deposition of Lesley Chiou, Ph.D., June 18, 2024
Deposition of Scott Lynch, October 12, 2023
VALVE_ANT_0215669
VALVE_ANT_119987
VALVE_ANT_2714225
"Valve summary statistics.xlsx" and supporting materials
"Global Games Market Report" (Full Version), Newzoo, July 2023
Ezrachi, A. (2015). The competitive effects of parity clauses on online commerce. *European Competition Journal*, 11(2-3), 488-519
Wang, C., & Wright, J. (2023). Platform investment and price parity clauses. *The Journal of Industrial Economics*, 71(2), 538-569
<https://medium.com/@unfoldgames/why-i-turned-down-exclusivity-deal-from-the-epic-store-developer-of-darq-7ee834ed0ac7>
<https://news.qoo-app.com/en/post/111223/qoo-app-steam-deck-interview>
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<https://rust.double11.com/xbox-buy-now>
<https://store.steampowered.com/app/252490/Rust/>
<https://www.businessinsider.com/guides/tech/steam-deck-vs-nintendo-switch>
<https://www.cnet.com/culture/ps5-or-series-x-gabe-newell-picks-next-gen-xbox-over-playstation/>
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<https://www.gamesradar.com/expect-more-playstation-games-on-pc-as-sony-reveals-its-plans-aggressive-work-on-multiplatform-releases/>
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<https://www.ign.com/articles/rust-console-edition-release-date-announced-for-ps4-and-xbox-one>
<https://www.nme.com/news/gaming-news/noisy-rust-dlc-adds-mobile-phones-boom-boxes-and-new-dances-2983909>
<https://www.pcgamer.com/gaming-industry/sonys-senior-vice-president-says-the-companys-live-service-games-will-release-simultaneously-with-pc-but-single-player-launches-are-designed-to-bring-new-players-onto-ps5/>
<https://www.polygon.com/2021/2/5/22268450/rust-softcore-servers-new-players-gameplay-changes-delivery-drones>
<https://www.rockpapershotgun.com/rusts-next-dlc-pack-adds-pools-tubes-and-water-guns>
<https://www.theverge.com/2024/5/29/24167560/sony-thinks-its-pc-games-will-tempt-you-to-buy-a-playstation-really>
<https://www.tomsguide.com/news/valve-steam-deck-vs-nintendo-switch-oled>
<https://www.xbox.com/en-US/apps/xbox-game-pass-mobile-app>
<https://www.xbox.com/en-US/games/xbox-play-anywhere>
<https://www.youtube.com/watch?v=9kO6Dj2XNfY>
https://x.com/Plagman2?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

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Reply Appendix B

Dr. Schwartz provided the following descriptions of the data prepared in “Valve summary statistics.xlsx”:

I describe below my use of Valve’s Transaction Data, which is primarily through the “Analysis Table” produced in the Schwartz Opening Report. See Appendix B of the Schwartz Opening Report for a detailed description of Valve’s Transaction Data and how the Analysis Table was compiled.

DLC (WW)

To identify Apps with in-app purchases, I flag any App that appears in Valve’s in-app purchases table. These transactions are identified with a [REDACTED] in the Schwartz Analysis Table.

To identify base games, I rely on the [REDACTED] produced in the Schwartz Analysis Table. The methodology behind this flag is described in the Schwartz Opening Report.

To identify “other” transactions (non-base games, non-in-app-purchases), I rely on transactions without a [REDACTED] or transactions where the [REDACTED] is *null*.

Across the board, I remove Apps with hardware or unknown types.

Annual ranking

I only consider revenue and units associated with Package sales when generating annual rankings. That is, I exclude units and revenues recorded in the in-app purchases table. To identify base games, I rely on the [REDACTED] produced in the Schwartz Analysis Table.

Bestselling Games on Steam and Console Ecosystems					
2017	Nintendo	PlayStation	Xbox	Steam (base game revenues only)	Steam (base + other revenues)
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2018	Nintendo	PlayStation	Xbox	Steam (base game revenues only)	Steam (base + other revenues)
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2019	Nintendo	PlayStation	Xbox	Steam (base game revenues only)	Steam (base + other revenues)
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2020	Nintendo	PlayStation	Xbox	Steam (base game revenues only)	Steam (base + other revenues)
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Bestselling Games on Steam and Console Ecosystems

	Nintendo	PlayStation	Xbox	Steam (base game revenues only)	Steam (base + other revenues)
2021	[Bar chart showing Nintendo's revenue distribution for 2021]	[Bar chart showing PlayStation's revenue distribution for 2021]	[Bar chart showing Xbox's revenue distribution for 2021]	[Bar chart showing Steam's base game revenues for 2021]	[Bar chart showing Steam's total revenues for 2021]
2022	[Bar chart showing Nintendo's revenue distribution for 2022]	[Bar chart showing PlayStation's revenue distribution for 2022]	[Bar chart showing Xbox's revenue distribution for 2022]	[Bar chart showing Steam's base game revenues for 2022]	[Bar chart showing Steam's total revenues for 2022]

Sources/Notes:

Top 10 lists for console platforms were compiled using Circana data produced by Dr. Chiou, see "circana_data.csv."

Top 10 lists for Steam were compiled using Steam's transaction data, see "Valve summary statistics.xlsx." See also, Reply Appendix B. Top 10 for "Steam (base + other revenues)" does not include certain in-app purchases but does include some DLC/special game editions.